Claims

What is claimed is:

[c1] A directional drilling system, comprising:

a casing string;

a casing latch disposed inside the casing string proximate a lower end of the casing string and coupled to the casing string;

a rotary steerable system disposed inside the casing string and coupled to the casing latch; and

a drill bit operatively coupled to the rotary steerable system.

[c2] The directional drilling system of claim 1, further comprising an underreamer disposed below the casing string and above the drill bit, and coupled to the rotary steerable system.

[c3] The directional drilling system of claim 1, wherein a bottom end of the casing string comprises a casing shoe cutter.

[c4] The directional drilling system of claim 3, wherein the casing shoe cutter comprises a wear resistant coating.

[c5] The directional drilling system of claim 3, wherein the casing shoe cutter comprises cutting inserts.

[c6] The directional drilling system of claim 1, wherein the rotary steerable system comprises a push-the-bit system.

[c7] The directional drilling system of claim 1, further comprising a measurement while drilling collar disposed between the rotary steerable system and the casing latch, and coupled to the casing latch and the rotary steerable system.

[c8] The directional drilling system of claim 1, wherein a lower section of the casing string comprises a non-magnetic material.

[c9] The directional drilling system of claim 1, wherein the casing latch is an articulating casing latch.

[c10] A method of directional drilling, comprising:
rotating a drill bit disposed at a lower end of a casing string; and
changing the direction of the drill bit by pushing against an inside of the casing string with a rotary steerable system disposed inside the casing string.

[c11] The method of claim 10, further comprising enlarging a pilot hole drilled by the drill bit using an underreamer coupled to the casing string.

[c12] The method of claim 10, wherein a bottom end of the casing string comprises a casing shoe cutter and further comprising enlarging a pilot hole drilled by the drill bit using the casing shoe cutter.

[c13] The method of claim 10, further comprising collecting data related to formation properties using instruments disposed in a measurement while drilling collar.